IN THE SPECIFICATION

Replace the paragraph on page 3, lines 3-21, with:

The present invention provides a method for determining whether a particular defect on a semiconductor wafer has been encountered previously. These defects are anomalies caused by anomalous events in the semiconductor manufacturing process. Examples of process steps that can cause defects having defect spatial signatures~~,~~ include, but are not limited to, particle contamination, mechanical surface damage, wafer spinning processes, scratching, and polishing. This method provides for electronically searching a database to determine if a spatial signature has occurred before and, if so, notifying an engineer. FIG. 3 is a flow chart of a process for performing defect spatial analysis in accordance with an embodiment of the present invention. In a beginning step identified by reference number 21, an electronic wafer map for a first wafer having a defect associated therewith is generated. In a next step (reference number 23), the electronic wafer map of the first wafer is partitioned into defect regions or areas by identifying local densities of defects, i.e., the defects are clustered using mathematical clustering techniques or using a stylus and a pad. Briefly referring to FIG. 4, a wafer map 16 of a defect spatial signature having a cluster boundary 17 is illustrated. The clustering is accomplished using a stylus and pad coupled to a computer system displaying an image of the defect spatial signature. By way of example, the defects are caused at a furnace operation in a semiconductor manufacturing process. The wafer map is stored in a relational database (reference number 25), such that the relationship of the defects to each other are stored in a row and column format. In other words, coordinates of the process signature for each defect are stored in the database thereby creating a relational database. For example, the coordinates of the process signature of a first defect are stored in the relational database and the coordinates of the process signature of a second defect are stored in the relational database.